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EXAMINER	
CORRIELUS, JEAN B	
ART UNIT	**PAPER NUMBER**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,670	EICHRODT ET AL.	
	Examiner	Art Unit	
	Jean B. Corrielus	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-19,21,26-29 and 31-34* is/are rejected.

7)☒ Claim(s) *20,22-25 and 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/5/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Objections

1. Claims 15-25, 27, 31-34 are objected to because of the following informalities: claim 15 recited the limitation a "clock detector" and "a data supervisor". However, the there is not signal communication between the "clock detector" and " the data supervisor" if correction is not made in the next communication, a potential claim objection may exist. Claim 19, "monostable" is mistyped as "monstable" as per claim 21, there is no signal communication between the comparator and the maximum number counter. The dependency of claim 23 should be changed from "21" to "22" to provide antecedent basis for "the reset signal". Claim 27, "would create" should be replaced by "creates". Claim 32 recites a single element "signal integrity supervisor" without any other circuit elements. The claim should be amended to recite a series of interconnected circuit components. Note that any claim whose base claim is objected is likewise objected. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 32 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Buer US Patent No. 6,188,257

Buer teaches a method and apparatus comprising a circuit fig. 1 to generate a response "reset" to a digital data stream (note that the signal on lines 151 and 152 have to be a digital signal since such signal is provided to a digital circuit) having an anomalous condition i.e. a clock signal frequency that falls below a predetermined minimum value. See col. 1, line 65- col. 2, line 2.

As per claim 33, see claim 32.

4. Claims 15, 26, 28 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamoi et al US Patent No. 6,026,098.

As per claim 15 Kamoi et al teaches a transmission signal integrity supervisor fig. 9, comprising: a clock detector 41 configured to receive a clock signal input and generate a first output signal in response to an at least one clock signal input anomalous condition see col. 13, lines 4-13; and a cell frame detector 42 considered as the claimed "data supervisor" configured to receive a digital data stream and generate a second output signal in response to an at least one digital data stream anomalous condition see col. 13, lines 14-22.

As per claim 26, see claim 15.

As per claim 28, Kamoi teaches circuits 41 and 42 considered as the claimed signal integrity supervisor.

As per claim 29, Kamoi teaches circuits 41 and 42 "signal integrity supervisor" includes a clock detector 41 and circuit 42 considered as the claimed data supervisor.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamoi et al US Patent No. 6,026,098 in view of Kodra US patent No. 6,226,663.

As applied to claim 15 above, Kamoi teaches every feature of the claimed invention but does not explicitly teaches the further limitation of a sigma delta modulator configured to provide the data signal. Kodra teaches a sigma delta modulator 12 configured to provide the data signal to monitor 22. Given that fact, it would have been obvious to one skill in the art to use a sigma delta modulator to produce the data signal so as to take advantage of the inherent property of the sigma delta modulator which makes the probability of encountering a long string of consecutive ones or zeroes during nominal operation to be very small.

7. Claim 17 is rejected under 35 U.S.C. 10.3(a) as being unpatentable over Kamoi US Patent No. 6,026,098 in view of Cummiskey US Patent No. 4,353,128.

As applied to claim 15 above, Kamoi teaches every feature of the claimed invention but does not explicitly teaches the further limitation that a power down signal

is generated in response to the data signal having an unchanging value. Cummiskey teaches the generation of "shut down signal" (power down signal) in response to the data signal having an unchanging value see col. 15, lines 39-41. It would have been obvious to one skill in the art to modify Kamoi by turning off the power when a data signal having an unchanging value is received as suggested by Cummiskey so as to prevent the system from processing invalid data signal and at the same time to minimize power consumption.

8. Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamoi et al US Patent No. 6,026,098.

As per claim 16, Kamoi teaches every feature of the claimed invention but does not explicitly teach the first output is a reset signal. However, it is well known in the art to use a clock detector to generate a reset signal. Given that, it would have been obvious to one skill in the art to configure Kamoi clock detector in such a way as to output a reset signal in order to ensure proper operation of the transmission apparatus. Since the apparatus would have been reset to a predetermined desired state that would have enhanced signal processing.

As per claim 19, Kamoi teaches every feature of the claimed invention but does not explicitly teach the clock detector includes first and second monostable circuits. Note however that it is well known in the art to incorporate monostable circuits in clock detector as monostable circuits behave well with other circuit components and are also easy to implement.

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamoi et al US Patent No. 6,026,098 in view of Shimakaki et al US patent No. 5,623,497.

As per claim 21, Kamoi teaches every feature of the claimed invention but does not explicitly that the data supervisor includes a comparator and a maximum number counter. Shimakaki teaches a comparator and a counter see fig. 4. Given that fact, it would have been obvious to one skill in the art to include a counter and a comparator in Kamoi in order to provide proper means to determine abnormalities in the input signal.

10. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamoi et al US Patent No. 6,026,098 in view of Bartelink US patent No. 4,390,750.

As applied to claim 26 above, Kamoi teaches every feature of the claimed invention but does no teach the limitations of the anomalous condition would create a DC signal. As evidence by Bartelink, it is known for an anomalous condition to create a DC signal. Given that, it would have been obvious to one skill in the art to modify Kamoi in such a way to create a DC signal during an anomalous condition in order to provide proper compensation for DC offset so as to improve data detection.

11. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamoi et al US Patent No. 6,026,098 in view of Buer US Patent No. 6,188,257.

As per claim 31, Kamoi teaches every feature of the claimed invention but does not explicitly teach the means for generating an output signal is responsive to a digital data stream having a clock signal that falls below a predetermined minimum frequency.

Buer teaches a method and apparatus comprising a circuit fig. 1 to generate a response "reset" to a digital data stream (note that the signal on lines 151 and 152 have to be a digital signal since such signal is provided to a digital circuit) having an anomalous condition i.e. a clock signal frequency that falls below a predetermined minimum value. See col. 1, line 65- col. 2, line 2. Given that fact, it would have been obvious to one skill in the art to incorporate such a teaching in Kamoi so as to minimize signal processing error since the system would have been allowed to act on abnormal signal.

12. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buer US Patent No. 6,188,257.

As per claim 34, Buer teaches every feature of the claimed invention but does not explicitly teach the digital data stream anomalous condition is a data signal having a corresponding data value that does not vary for a predetermined maximum number of clock cycles. However, it would have been obvious to one skill in the art to configure Buer in such a way as set the anomalous condition as at a data signal having a corresponding data value that does not vary for a predetermined maximum number of clock cycles so as to provide proper means to identify signal abnormalities so as to provide proper compensation.

Allowable Subject Matter

13. Claims 20, 22-25 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jean B Corrielus
Primary Examiner
Art Unit 2611 6-7-07